

SUMMARY OF ANALYSIS (SAMPLE ID: SA35462)

Testing Location:	Customer ID: 2161	Order ID: OR10498	Sample Type: Primary
Arkansas	River Valley Relief Cultivation	Lot Number:	Matrix: Flower
232 S. Broadview St.	5601 Old Greenwood Rd Suite C	M00065C13132165635	Mass: 22g
Greenbrier, AR 72058	Fort Smith, AR 72903	Production Run:	Date Collected: 06/19/2023
License: ADH 113	License: 00065C	6034H20230504BBF-1	Date Received: 06/20/2023
Cultivar (Strain) or Sample Description: Ben's Buffalo			Date Completed: 06/21/2023

*This page is simply a summary of the analysis performed. For analytical details, please consult the individual Certificate(s) of Analysis for each of the specific test(s) performed. All contaminant action levels are referenced from the State of Arkansas MMJ testing guidelines.

Moisture Content (%)

13.7

Water Activity (aw)

0.465 @ 24.0°C

PASS/FAIL

PASS

Moisture content/water activity action levels are referenced from the State of Arkansas MMJ testing guidelines.

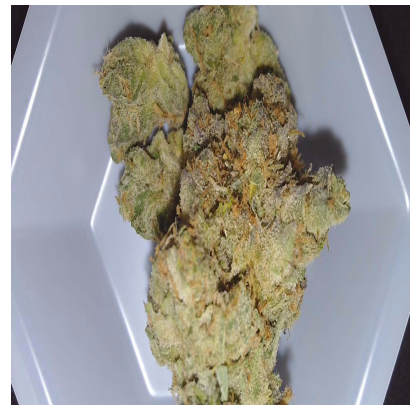
Moisture content levels less than 15% are recommended but the sample does not fail. Water activity levels must be less than 0.65aw.

Cannabinoids (Top 3)	(%)	mg/g
THCA	18.4	184
CBGA	0.932	9.32
Δ9-THC	0.796	7.96
TOTAL CBD	-	-
TOTAL THC	16.9	169
TOTAL CANNABINOIDS	20.8	208

Terpenes (Top 5)	(%)	µg/g
Terpinolene	0.134	1340
β-Myrcene	0.0756	756
β-Ocimene	0.0530	530
d-Limonene	0.0491	491
Linalool	0.0360	360
TOTAL TERPENES	0.479	4790

Contaminants	PASS/FAIL
Heavy Metals:	PASS
Microbiology:	PASS
Pesticides:	PASS

Sample Picture Upon Receipt



Scan the QR code to verify results.

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www.FASTLaboratories.com

Kyle W. Felling
Kyle W. Felling, Ph.D.
Laboratory Director



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CANNABINOID (POTENCY) PROFILE (SOP: SOP-CANN-001)

Analysis Date/Time: 06/20/2023 1625

Method: HPLC/DAD

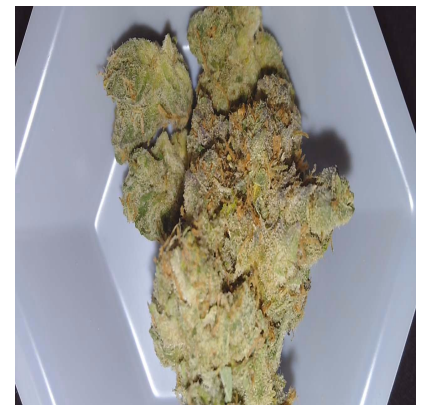
Moisture Content (%): 13.7

Analyst: PW

Instrument: Agilent 1100

Water Activity (aw): 0.465 @ 24.0°C

<u>Cannabinoid</u>	<u>Result</u> <u>(%)</u>	<u>Result</u> <u>(mg/g)</u>	<u>LOD</u> <u>(mg/g)</u>	<u>LOQ</u> <u>(mg/g)</u>	<u>Result</u> <u>(mg/mL)</u>	<u>Per</u> <u>Serving</u> <u>(mg)</u>	<u>Per</u> <u>Unit</u> <u>(mg)</u>
CBC	ND	ND	0.0415	0.0967	-	-	-
CBCA	ND	ND	0.129	0.300	-	-	-
CBD	ND	ND	0.292	0.683	-	-	-
CBDV	ND	ND	0.108	0.251	-	-	-
CBDVA	ND	ND	0.0469	0.109	-	-	-
CBDVA	ND	ND	0.125	0.292	-	-	-
CBG	ND	ND	0.190	0.443	-	-	-
CBGA	0.932	9.32	0.269	0.317	-	9.32	9.32
CBL	ND	ND	0.219	0.512	-	-	-
CBN	ND	ND	0.101	0.235	-	-	-
CBNA	ND	ND	0.109	0.253	-	-	-
Δ9-THC	0.796	7.96	0.121	0.281	-	7.96	7.96
Δ8-THC	ND	ND	0.188	0.440	-	-	-
THCA	18.4	184	0.0655	0.153	-	184	184
THCV	ND	ND	0.157	0.366	-	-	-
THCVA	0.680	6.80	0.0502	0.117	-	6.80	6.80
TOTAL	20.8	208			-	208	208
TOTAL CBC	-	-			-	-	-
TOTAL CBD	-	-			-	-	-
TOTAL CBDV	-	-			-	-	-
TOTAL CBG	0.818	8.18			-	8.18	8.18
TOTAL CBN	-	-			-	-	-
TOTAL THC	16.9	169			-	169	169
TOTAL THCVA	0.590	5.90			-	5.90	5.90



SERVING MASS (g): 1.00
SERVINGS/UNIT: 1

"-" Not detected above LOD.

Deviations from standard operating procedure:
None

Recoveries for all analyte standards: 90-110%
Replicate Uncertainties: <5% RSD, <20% RPD
Sample/Reagent Blanks: <RL for all analytes

Values for plant matter are adjusted for moisture content.

Total CBC = (CBCA x 0.877) + CBC
Total CBD = (CBDV x 0.877) + CBD
Total CBDV = (CBDVA x 0.867) + CBDV
Total CBG = (CBGA x 0.878) + CBG
Total CBN = (CBNA x 0.876) + CBN
Total THC = (THCA x 0.877) + Δ9-THC
Total THCVA = (THCVA x 0.867) + THCVA

Percentage results are reported by mass.

mg/g results are reported as mass component per mass material.

Abbreviations: DAD - Diode Array Detector, HPLC - High Pressure Liquid Chromatography, RL - Reporting Limit, RPD - Relative Percent Difference, RSD - Relative Standard Deviation, DET - Detected (less than LOQ), LOD - Limit of Detection, LOQ - Limit of Quantitation, UM - Measurement Uncertainty

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TERPENOID PROFILE

Analysis Date/Time: 06/21/2023 0557

Method: GC/MS

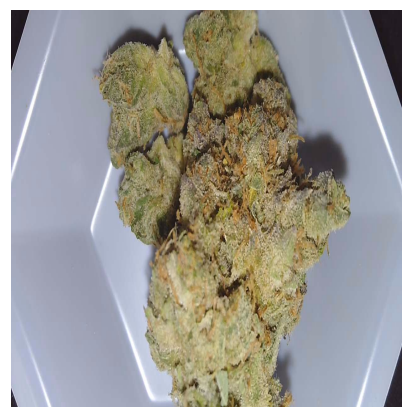
Deviations from SOP:

Analyst: KF

Instrument: Agilent 7890/5975

None

<u>Terpene</u>	<u>Result</u> (µg/g)	<u>Result</u> (%)	
α-Bisabolol	14.0	0.00140	
Camphene	25.8	0.00258	
δ-3-Carene	61.3	0.00613	
β-Caryophyllene	296	0.0296	
Caryophyllene oxide	-	-	
p-Cymene	-	-	
Eucalyptol	19.1	0.00191	
Geraniol	7.40	0.000740	
Guaiol	-	-	
α-Humulene	119	0.0119	
Isopulegol	-	-	
d-Limonene	491	0.0491	
Linalool	360	0.0360	
β-Myrcene	756	0.0756	
cis-Nerolidol	-	-	
trans-Nerolidol	21.2	0.00212	
α-Ocimene	30.3	0.00303	
β-Ocimene	530	0.0530	
α-Pinene	213	0.0213	
β-Pinene	311	0.0311	
α-Terpinene	106	0.0106	
γ-Terpinene	90.8	0.00908	
Terpinolene	1340	0.134	
TOTAL	4790	0.479	



Abbreviations: GC - Gas Chromatography, MS - Mass Spectrometry, RL - Reporting Limit

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"-" Not detected above RL.

Reporting Limit (µg/g): 140

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PESTICIDES PROFILE (SOP: SOP-PEST-001)

Analysis Date/Time: 06/20/2023 1721

Analyst: KF

Method: LC/MS/MS

Instrument: Shimadzu LC-8050

Deviations from SOP:

None

Pesticide	Result (µg/g)	LOD (µg/g)	LOQ (µg/g)	Action Level (µg/g)	Pesticide	Result (µg/g)	LOD (µg/g)	LOQ (µg/g)	Action Level (µg/g)
Abamectin (71751-41-2)	-	0.0453	0.363	0.5	Kresoxim-methyl (143390-89-0)	-	0.0453	0.363	0.4
Acephate (30560-19-1)	-	0.0453	0.363	0.4	Malathion (121-75-5)	-	0.0453	0.363	0.2
Acetamiprid (135410-20-7)	-	0.0453	0.363	2	Metalaxyl (57837-19-1)	-	0.0453	0.363	0.2
Aldicarb (116-06-3)	-	0.0453	0.363	0.4	Methiocarb (2032-65-7)	-	0.0453	0.363	0.2
Azoxystrobin (131860-33-8)	-	0.0453	0.363	0.2	Methomyl (16752-77-5)	-	0.0453	0.363	0.4
Bifenazate (149877-41-8)	-	0.0453	0.363	0.2	Methyl parathion (298-0-0)	-	0.0453	0.363	0.2
Bifenthrin (82657-04-3)	-	0.0453	0.363	0.2	MGK 264 (113-48-4)	-	0.0453	0.363	0.2
Boscalid (188425-85-6)	-	0.0453	0.363	0.4	Myclobutanil (88671-89-0)	-	0.0453	0.363	0.2
Carbaryl (63-25-2)	-	0.0453	0.363	0.2	Naled (300-76-5)	-	0.0453	0.363	0.5
Carbofuran (1563-66-2)	-	0.0453	0.363	0.2	Oxamyl (23135-22-0)	-	0.0453	0.363	1
Chlorantraniliprole (800008-45-7)	-	0.0453	0.363	0.2	Paclobutrazol (76738-62-0)	-	0.0453	0.363	0.4
Chlorfenapyr (122453-73-0)	-	0.0453	0.363	1	Permethrins (52645-53-1)	-	0.0453	0.363	0.2
Chlorpyrifos (2921-88-2)	-	0.0453	0.363	0.2	Phosmet (732-11-6)	-	0.0453	0.363	0.2
Clofentezine (74115-24-5)	-	0.0453	0.363	0.2	Piperonyl butoxide (51-03-6)	-	0.0453	0.363	2
Cyfluthrin (68359-37-5)	-	0.0453	0.363	1	Prallethrin (2331-36-9)	-	0.0453	0.363	0.2
Cypermethrin (52315-07-8)	-	0.0453	0.363	1	Propiconazole (60207-90-1))	-	0.0453	0.363	0.4
Daminozide (1596-84-5)	-	0.0453	0.363	1	Propoxur (114-26-1)	-	0.0453	0.363	0.2
DDVP (62-73-7)	-	0.0453	0.363	0.1	Pyrethrins (8003-34-7)	-	0.0453	0.363	1
Diazinon (333-41-5)	-	0.0453	0.363	0.2	Pyridaben (96489-71-3)	-	0.0453	0.363	0.2
Dimethoate (60-51-5)	-	0.0453	0.363	0.2	Spinosad (168316-95-8)	-	0.0453	0.363	0.2
Ethoprophos (13194-48-4)	-	0.0453	0.363	0.2	Spiromesifen (283594-90-1)	-	0.0453	0.363	0.2
Etofenprox (80844-07-1)	-	0.0453	0.363	0.4	Spirotetramat (203313-25-1)	-	0.0453	0.363	0.2
Etoazole (153233-91-1)	-	0.0453	0.363	0.2	Spiroxamine (118134-30-8)	-	0.0453	0.363	0.4
Fenoxycarb (72490-01-8)	-	0.0453	0.363	0.2	Tebuconazole (80443-41-0)	-	0.0453	0.363	0.4
(E)-Fenpyroximate (134098-61-6)	-	0.0453	0.363	0.4	Thiacloprid (111988-49-9)	-	0.0453	0.363	0.2
Fipronil (120068-37-3)	-	0.0453	0.363	0.4	Thiamethoxam (153719-23-4)	-	0.0453	0.363	0.2
Flonicamid (158062-67-0)	-	0.0453	0.363	1	Trifloxystrobin (141517-21-7)	-	0.0453	0.363	0.2
Fludioxinil (131341-86-1)	-	0.0453	0.363	0.4					
Hexythiazox (78587-05-0)	-	0.0453	0.363	1					
Imazalil (35554-44-0)	-	0.0453	0.363	0.2					
Imidacloprid (138261-41-3)	-	0.0453	0.363	0.4					



Color Key

RESULT < AL

RESULT > AL

"DET" detected less than LOQ

"-" not detected above
LOD

Permethrins measured as the
cumulative residue of the *cis*- and
trans- permethrin isomers.

Pyrethrins measured as the
cumulative residue of the
pyrethrin I, cinerin I, and jasmolin
I isomers.

Action levels are referenced from
the
State of Arkansas MMJ testing
guidelines.

A value of "-" for the action level
means that analyte is not
currently regulated by the
regulations referenced above.

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Abbreviations: LC - Liquid Chromatography, MS - Mass Spectrometry, RL - Reporting Limit, AL - Action Level, CAS - Chemical Abstract Services, LOD - Limit of Detection, LOQ - Limit of Quantification

Pesticide	Synonym(s)	Pesticide	Synonym(s)	Pesticide	Synonym(s)
Cyfluthrin	Baythroid	Myclobutanil	Systhane	Propiconazole	Tilt
DDVP	Dichlorvos	Naled	Dibrom	Propoxur	Baygon
Ethoprophos	Prophos	Phosmet	Imidan		

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HEAVY METAL PROFILE (SOP: SOP-ICP-200.6)

Analysis Date/Time: 06/20/2023 1813 (ICP/OES)	Method: ICP/MS	Deviations from SOP:
Analysis Date/Time: - (DMA)	Instrument: Agilent 7500ce	None
Analyst: KF		

Heavy Metal	Result (µg/kg)	LOD (µg/kg)	LOQ (µg/kg)	Action Level (µg/kg)
Arsenic (As)	-	55.4	87.8	200
Cadmium (Cd)	-	55.4	87.8	200
Lead (Pb)	-	55.4	87.8	500
Mercury (Hg)	-	55.4	87.8	100



Abbreviations: ICP - Inductively-Coupled Plasma, OES - Optical Emission Spectroscopy,
DMA - Direct Mercury Analyzer, RL - Reporting Limit, AL - Action Level, LOD - Limit of Detection, LOQ - Limit of Quantitation

Color Key

RESULT < AL
RESULT > AL

"DET" detected less than LOQ

"-" not detected above LOD

Action levels for heavy metals are referenced from the State of Arkansas MMJ testing guidelines.

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MICROBIOLOGICAL PROFILE (SOP: SOP-Micro-001)

Analysis Date/Time: 06/21/2023 0953
Analyst: PW
Method: Hardy Diagnostics CompactDry
Instrument: Thermo Incubator
Deviations from SOP: None

Bacteria/Microbe	Result (CFU/g)	Action Level (CFU/g)
Aerobic Plate Count	NT	-
Coliforms, Total	Absent	1
Escherichia Coli (E. Coli)	Absent	100
Mold/Yeast	NT	-
Pseudomonas aeruginosa	NT	-
Salmonella spp.	NT	-
Staphylococcus aureus	NT	-



Abbreviations: EC - Escherichia Coli, CFU - Colony-Forming Unit, RL - Reporting Limit, AL - Action Level, TNTC - Too Numerous To Count, NT - Not Tested
Absent - Not Detected Above RL, Present - Detected Above RL

Color Key

RESULT < AL

RESULT > AL

Reporting Limit (CFU/g)

1

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